



## Climate Change Impact on Urban Drainage in Coastal Belt of Bangladesh

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### ABSTRACT

Due to urbanization and increase in population, urban regions of Bangladesh require immediate improvement of the drainage system. Realizing the importance of this issue, Government of Bangladesh has emphasized on this matter; and has already taken an initiative to develop the drainage system of urban areas. Various Government Agencies are conducting studies to improve the existing situation. Undoubtedly, this will change the socio-economic life of people; more importantly give a framework that will help in making the water management policy for the Municipalities. The Cities in coastal belt are particularly vulnerable to Climate Change impact. To assess the impact of Climate Change, two Cities with different characteristics were chosen from Southern coastline of the Bangladesh. First Urban Drainage Model (UDM) for the area was developed separately, and then UDM of that area was incorporated into the respected regional model developed by Institute of Water Modelling (IWM), Bangladesh, to reflect the regional hydrological influence in that location.

A comparison between the existing conditions with Climate Change condition draws a clear indication of Climate Change impact and the analysis helps to identify adaptive design parameters for Climate Change scenario; and that will help in designing a sustainable urban drainage system to face the future consequences.

### KEYWORD

Climate Change Impact, Urban Drainage Model, Coastal Belt of Bangladesh, Improved Drainage System